## ABSTRACT OF THE DISCLOSURE

A method for detecting registering errors for multi-color rotary presses in which register marks are printed on a paper web by each printing section, a light source is caused to flash based on a reference signal generated by signal output means operating in synchronism with the rotation of a predetermined plate cylinder for outputting signals, the register marks printed by all printing sections are read as two-dimensional image data via reading means operating in synchronism with the flashing of the light source, the two-dimensional image data are developed into matrix data, a first center of gravity is found as an approximate center of gravity of each register mark from the matrix data, a second center of gravity is found as a high-precision center of gravity of each register mark from the matrix data based on the first center of gravity, the second center of gravity of a predetermined register mark is used as a reference to find the relative positions of other register marks, a deviation of the resulting relative positions from the reference relative position is found, and the deviation is regarded as a registering error.